

AIR QUALITY PERMIT

Issued To: Plains Marketing, L.P.
Four Mile Crude Oil Station
P.O. Box 708
Belfield, ND 58622

Permit #3312-00
Application Complete: 03/01/04
Preliminary Determination Issued: 03/09/04
Department Decision Issued: 05/14/04
Permit Final: 06/02/04
AFS #: 083-0025

An air quality permit, with conditions, is hereby granted to Plains Marketing, L.P. (Plains Marketing) pursuant to Sections 75-2-204 and 211, Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

Section I: Permitted Facilities

A. Plant Location

Plains Marketing submitted a permit application for a crude oil station located in Section 18, Township 25 North, Range 59 East, in Richland County, Montana. The facility is known as the Four Mile Crude Oil Station. The facility is located approximately 16 miles west of Fairview, Montana on Highway 201. The facility unloads oil from transport trucks and injects the oil into a pipeline owned by Plains Marketing Energy.

B. Permitted Facility

On March 1, 2004, the Department of Environmental Quality (Department) received a complete permit application from Plains Marketing to build a facility that unloads oil from transport trucks and injects the oil into a pipeline owned by Plains Marketing. Plains Marketing's crude oil throughput will be approximately 2,154,960 barrels per year (bbl/yr). The project would have a Potential to Emit (PTE) for Volatile Organic Compounds (VOCs) of over 25 tons per year, thus requiring a Montana Air Quality permit. The complete list of permitted equipment is located in the permit analysis.

Section II: Limitations and Conditions

A. Emission Control Requirements

1. Plains Marketing may not cause or authorize to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).
2. Plains Marketing shall not cause or authorize emissions to be discharged into the atmosphere from haul trucks, access roads, parking lots, or the general plant property without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).
3. Plains Marketing shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.2 (ARM 17.8.752).

4. Plains Marketing shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements of 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS), Subpart Kb – Standards of Performance for Volatile Liquid Organic Storage Vessels (Including Petroleum Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (ARM 17.8.340 and 40 CFR 60, Subpart Kb):
5. Unloading tank trucks to storage tanks shall be restricted to the use of submerged fill (ARM 17.8.752).

B. Inspection and Repair Requirements

1. Each calendar month, all fugitive piping components (valves, flanges, pump seals, open-ended lines) shall be inspected for leaks. For purposes of this requirement, detection methods incorporating sight, sound, or smell are acceptable (ARM 17.8.105 and ARM 17.8.752).
2. Plains Marketing shall (ARM 17.8.105 and ARM 17.8.752):
 - a. Make a first attempt at repair for any leak not later than 5 calendar days after the leak is detected; and
 - b. Repair any leak as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in Section II.B.3.
3. Delay of repair of equipment for which a leak has been detected will be allowed if repair is technically infeasible without a source shutdown. Such equipment shall be repaired before the end of the first source shutdown after detection of the leak (ARM 17.8.752).

C. Reporting Requirements

1. Plains Marketing shall supply the Department with annual production information for all emission points, as required by the Department, in the annual emissions inventory request. The request will include, but is not limited to, all sources of emissions identified in the most recent emission inventory report and sources identified in Section I.A of the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in units as required by the Department (ARM 17.8.505).

2. Plains Marketing shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745(1) that would include a change in the control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emissions unit. The notice must be submitted to the Department, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).

D. Recordkeeping Requirements

1. A record of each monthly leak inspection required by Section II.B.1 of this permit shall be kept on file with Plains Marketing. Inspection records shall include, at a minimum, the following information (ARM 17.8.749):
 - a. Date of inspection;
 - b. Findings (may indicate no leaks discovered or location, nature, and severity of each leak);
 - c. Leak determination method;
 - d. Corrective action (date each leak repaired and reasons for any repair interval in excess of 15 calendar days); and
 - e. Inspector's name and signature.
2. The records compiled in accordance with the requirements above shall be maintained by Plains Marketing as a permanent business record for at least 5 years, shall be submitted to the Department upon request, and shall be available for inspection by the Department (ARM 17.8.749).

E. Testing Requirements

1. The Department may require testing (ARM 17.8.105).
2. All compliance source tests shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

Section III: General Conditions

- A. Inspection – Plains Marketing shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections, surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Plains Marketing fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Plains Marketing of the responsibility for complying with any applicable federal or Montana statute, rule or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the

Montana Administrative Procedures Act. The Department's decision on the application is not final unless 15 days have elapsed and there is no request for a hearing under this section. The filing of a request for a hearing postpones the effective date of the Department's decision until the conclusion of the hearing and issuance of a final decision by the Board.

- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Construction Commencement - Construction must begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked.
- H. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Plains Marketing may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

PERMIT ANALYSIS
Plains Marketing, L.P.
Four Mile Crude Oil Station
Permit # 3312-00

I. Introduction/Process Description

A. Permitted Equipment

Plains Marketing, L.P. (Plains Marketing) submitted a permit application for its Four Mile Crude Oil Station located in Section 18, Township 25 North, Range 59 East, in Richland County, Montana. The facility is located approximately 16 miles west of Fairview, Montana on Highway 201. The following equipment are permitted for this facility:

- | <u>Tanks</u> | <u>Year Constructed</u> | <u>Source Description</u> |
|--------------|-------------------------|---------------------------------|
| Tank 88292 | 2004 | 400 barrel (bbl) crude oil tank |
| Tank 88293 | 2004 | 400 bbl crude oil tank |
- Pipeline Component Fugitives (includes 2 100-gallon sump boxes and truck unloading rack)
 - Unpaved Road Fugitives

B. Source Description

The Plains Marketing facility unloads oil from transport trucks and injects the oil into a pipeline owned by Plains Marketing. Following Permit Action #3312-00, the maximum throughput for the facility would be 2,154,960 barrels per year (bbl/yr).

C. Current Permit Action

On May 7, 2004, the Department received a letter requesting the Department change the corporate name on permit #3312-00 from Link Energy Limited Partnership to Plains.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available upon request from the Department of Environmental Quality (Department). Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1, General Provisions, including, but not limited to:

1. ARM 17.8.101, Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105, Testing Requirements. Any person or persons responsible for the emissions of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106, Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Codes Annotated (MCA).

Plains Marketing shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110, Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation, or to continue for a period greater than 4 hours.
5. ARM 17.8.111, Circumvention. (1) No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant which would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.

B. ARM 17.8, Subchapter 2, Ambient Air Quality, including, but not limited to:

1. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.213 Ambient Air Quality Standard for Ozone
5. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
6. ARM 17.8.221 Ambient Air Quality Standard for Visibility
7. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀

Plains Marketing must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3, Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged to an outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate. (2) Under this rule, Plains Marketing shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.324 Hydrocarbon Emissions - Petroleum Products. No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent

submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule. The Plains Marketing Four Mile Crude Oil Station is exempt from this rule because the crude oil storage tanks that are listed in the permit application have a capacity less than 65,000 gallons.

4. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR 60, New Source Performance Standards (NSPS). Plains Marketing is considered an NSPS affected facility under 40 CFR 60 and is subject to NSPS Subparts including, but not limited to:

Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. Tanks 88292 and 88293 are subject to Subpart Kb.

5. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. This rule incorporates, by reference, 40 CFR 63, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories. Since the emissions of Hazardous Air Pollutants (HAPs) from the Plains Marketing Four Mile Crude Oil Station is less than 10 tons per year for any individual HAP and less than 25 tons per year for all HAPs combined, the Plains Marketing facility is not subject to the provisions of 40 CFR 63.

D. ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Plains Marketing submitted the appropriate permit application fee for the current permit action.
2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

The annual assessment and collection of the air quality operation fee, as described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions which pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7, Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter or use any air contaminant sources that have the Potential to Emit (PTE) greater than 25 tons per year of any pollutant. The Plains Marketing facility has the PTE more than 25 tons per year of Volatile Organic Compounds (VOCs); therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration or use of a source. Plains Marketing submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. Plains Marketing submitted an affidavit of publication of public notice for the February 25, 2004, issue of the *Sidney Herald*, a newspaper of general circulation in the Town of Sidney in Richland County, as proof of compliance with the public notice requirements.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The BACT analysis is discussed in Section III of this permit analysis.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Plains Marketing of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
14. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8, Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
2. ARM 17.8.818 Review of Major Stationary Sources and Major Modification--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the Federal Clean Air Act (FCAA) that it would emit, except as this subchapter would otherwise allow.

The Plains Marketing Four Mile Crude Oil Station is not a major stationary source because it is not listed and does not have the PTE more than 250 tons per year (excluding fugitive emissions) of any air pollutant.

G. ARM 17.8, Subchapter 12, Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
 - a. PTE > 100 tons/year of any pollutant;

- b. PTE > 10 tons/year of any one HAP, or PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. Sources with a PTE > 70 tons/year of PM₁₀ in a serious PM₁₀ nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #3312-00 for Plains Marketing, the following conclusions were made:
- a. The facility's PTE is less than 100 tons/year for several criteria pollutants.
 - b. The facility's PTE is less than 10 tons/year of any one HAP and less than 25 tons/year of all HAPs.
 - c. This facility is not located in a serious PM₁₀ nonattainment area.
 - d. This facility is subject to a current NSPS standard (40 CFR 60, Subpart Kb).
 - e. This facility is not subject to a current NESHAP standard.
 - f. This facility is not a Title IV affected source.
 - g. This facility is not EPA designated Title V source.

Based on these facts, the Department determined that Plains Marketing would be a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, Plains Marketing will be required to obtain a Title V Operating Permit.

III. BACT Analysis

A BACT determination is required for any new or altered source. Plains Marketing shall install on the new or altered source the maximum air pollution control capability, which is technologically practicable and economically feasible, except that Best Available Control Technology (BACT) shall be utilized.

A. VOC BACT

Plains Marketing provided a review of installing floating roofs on their crude oil storage tanks. Typically floating roofs are required by 40 CFR 60.110b on storage tanks with a capacity in excess of 75 cubic meters (M³) (471 barrels) built after July 23, 1984. The two 400-barrel tanks at the Four Mile Station are exempted from requiring additional controls in Section 40 CFR 60.110b (b); *Except as specified in paragraphs (a) and (b) of 60.116b, storage vessels with a design capacity less than 75 M³ (471 barrels) are exempt from the General Provisions (Part 60, Subpart A) and from provisions of this subpart.* Based on BACT determinations for similar sources, the Department determined that the installation of floating roofs would not constitute BACT in this case.

Plains Marketing provided a review of installing a flare at the Four Mile Crude Oil Station. Safety is a concern with the operation of a flare at pipeline transportation facility. With each withdrawal of crude oil from pipeline transportation related tanks, air is pulled into the tank through the vents creating a potentially explosive mixture. With a potentially explosive atmosphere in crude oil-transportation related tanks, a flare stack, even equipped with flashback protection, may be dangerous. Also to operate a flare, fuel is needed for the flare pilot and to enrich the vapor stream to maintain heating value for flare combustion. At a crude oil truck/pipeline station, natural gas or propane would need to be transported to the facility in order to operate the flare. Based on BACT determinations for similar sources and this discussion regarding flares at crude oil transportation facilities, the Department determined that the installation of a flare would not constitute BACT in this case.

A first attempt at correcting a leak shall be conducted no later than 5 calendar days after the leak is detected. Leaks shall be repaired as soon as practicable, but no later than 15 calendar days after detection. Leaks that are technically infeasible to fix without a source shutdown shall be repaired before the end of the first source shutdown after detection of the leak.

The Department has determined that inspecting all fugitive components for leaks, on a monthly basis, and the use of submerged fill shall constitute BACT for the Plains Marketing Four Mile Crude Oil Station.

B. PM₁₀ BACT

The Department has also determined that maintaining compliance with the reasonable precaution limitations for haul roads, which may include water and/or chemical dust suppressant, shall constitute BACT for Plains Marketing Four Mile Crude Oil Station.

The control options selected have controls and control costs similar to other recently permitted similar sources and are capable of complying with the appropriate emission standards.

IV. Emission Inventory

Source	Tons/Year						
	PM	PM ₁₀	NOx	VOC	CO	SO ₂	HAPs
Tank 88292 (400 bbl)				42.27			4.35
Tank 88293 (400 bbl)				42.27			4.35
Pipeline Component Fugitives				2.96			0.31
Haul Roads	10.47	10.10					
Total	10.47	10.10	0.00	87.50	0.00	0.00	9.01

Tanks (standing and working losses from facility storage tanks):

Total Tank 88292 VOC emissions = 84,529.74 lb/yr * 0.0005 ton/lb = 42.27 ton/yr

Total Tank 88293 VOC emissions = 84,529.74 lb/yr * 0.0005 ton/lb = 42.27 ton/yr

Total VOC emissions from tanks: 84.54 ton/yr

Emissions calculated using EPA Tanks v.4.0 Storage Tank Emissions Calculation Software.

Tanks HAP Emission Calculations

Basis for Speciation Factors: EPA Speciate Program Profile No. 1210 – Pipeline Terminal Tanks

HAP	Speciation Factor (% HAP in vapor phase)	VOC Emissions (Ton/yr)	HAP Emissions (Ton/yr)
Benzene	0.54	84.54	0.46
Toluene	0.90	84.54	0.76
Ethylbenzene	0.22	84.54	0.19
Xylene	0.89	84.54	0.75
Hexane	4.69	84.54	3.97
2,2,4 - Trimethylpentane	3.03	84.54	2.56
Total Fugitive HAPs			8.69

Fugitive VOC Emission Calculations (calculated at 100% VOC)

Basis for Emission Factors: EPA Protocol for Equipment Leak Emission Estimates, November 1995 (EPA-453/R-95-017)

Connector: 30 components in light oil service (≥ 20 API Gravity)
Emission Factor: 0.011111184 lb/day
Calculation: 30 components * 0.011111184 lb/day-component * 365 day/yr * 0.0005 ton/lb = 0.06 ton/yr

Flange: 240 components in light oil service (≥ 20 API Gravity)
Emission Factor: 0.005820144 lb/day-component
Calculation: 240 components * 0.005820144 lb/day-component * 365 day/yr * 0.0005 ton/lb = 0.25 ton/yr

Open-ended Line: 8 components in light oil service (≥ 20 API Gravity)
Emission Factor: 0.07407456 lb/day
Calculation: 8 components * 0.07407456 lb/day-component * 365 day/yr * 0.0005 ton/lb = 0.11 ton/yr

Other: 10 components in light oil service (≥ 20 API Gravity)
Emission Factor: 0.396828 lb/day
Calculation: 10 components * 0.396828 lb/day-component * 365 day/yr * 0.0005 ton/lb = 0.72 ton/yr

Pump: 3 components in light oil service (≥ 20 API Gravity)
Emission Factor: 0.6878352 lb/day
Calculation: 3 components * 0.6878352 lb/day-component * 365 day/yr * 0.0005 ton/lb = 0.38 ton/yr

Valve: 60 components in light oil service (≥ 20 API Gravity)
Emission Factor: 0.132276 lb/day
Calculation: 60 components * 0.132276 lb/day-component * 365 day/yr * 0.0005 ton/lb = 1.44 ton/yr

Total Fugitives from Piping: 2.96 ton/yr

Fugitive HAP Emission Calculations

Basis for Speciation Factors: EPA Speciate Program Profile No. 1210 – Pipeline Terminal Tanks

HAP	Speciation Factor (% HAP in vapor phase)	VOC Emissions (Ton/yr)	HAP Emissions (Ton/yr)
Benzene	0.54	2.96	0.016
Toluene	0.90	2.96	0.027
Ethylbenzene	0.22	2.96	0.007
Xylene	0.89	2.96	0.026
Hexane	4.69	2.96	0.139
2,2,4 - Trimethylpentane	3.03	2.96	0.090
Total Fugitive HAPs			0.305

Haul Roads: Fugitive PM and PM₁₀ Emissions from Unpaved Roads

Basis for Emission Factors: AP-42, Section 13.2.2 (12/03), Unpaved Roads

Semi-trucks: 2,154,960 bbl/yr total throughput / 220.0 bbl/truck * 0.5 VMT/truck = 4897.64 VMT/yr
PM = 4897.64 VMT/yr * 4.114091 lb/VMT * 0.0005 ton/lb = 10.07 ton/yr
PM₁₀ = 4897.64 VMT/yr * 3.966776 lb/VMT * 0.0005 ton/lb = 9.71 ton/yr

Pickups: $1460 \text{ truck/yr} * 0.5 \text{ VMT/truck} = 730 \text{ VMT/yr}$
 $\text{PM} = 730 \text{ VMT/yr} * 1.100078 \text{ lb/VMT} * 0.0005 \text{ ton/lb} = 0.40 \text{ ton/yr}$
 $\text{PM}_{10} = 730 \text{ VMT/yr} * 1.060687 \text{ lb/VMT} * 0.0005 \text{ ton/lb} = 0.39 \text{ ton/yr}$

See Application #3312-00 for detailed emission inventory information.

V. Existing Air Quality

The Plains Marketing facility is located in eastern Montana in a sparsely populated area with generally very good ventilation throughout the year. The legal description of the facility is Section 18, Township 25 North, Range 59 East, in Richland County, Montana. Richland County is unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants.

VI. Ambient Air Impact Analysis

The Department determined, based on the relatively small amount of emissions and the existing air quality in the area, that the impact from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, Montana 59620-0901
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Plains Marketing, L.P.
Four Mile Crude Oil Station
P.O. Box 708
Belfield, ND 58622

Air Quality Permit Number: #3312-00

Preliminary Determination Issued: 03/09/04

Department Decision Issued: 05/14/04

Permit Final: 06/02/04

1. *Legal Description of Site:* Plains Marketing would be located in Section 18, Township 25 North, Range 59 East, Richland County, Montana.
2. *Description of Project:* The Department proposes to issue a Montana Air Quality Permit to Plains Marketing to build a facility that unloads oil from transport trucks and injects the oil into a pipeline owned by Plains Marketing. Plains Marketing's crude oil throughput will be approximately 2,154,960 barrels per year (bbl/yr).
3. *Objectives of Project:* To build a facility that unloads oil from transport trucks and injects the oil into a pipeline owned by Plains Marketing.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the "no action" alternative. The "no action" alternative would deny the issuance of the air quality preconstruction permit to the proposed facility. Under the "no action" alternative, the facility could not rebuild the existing pump, and therefore would have to remain at the same throughput level. The "no action" alternative was dismissed because Plains Marketing demonstrated compliance with all applicable rules and standards as required for permit issuance.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a BACT analysis, would be included in Permit #3312-00.
6. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and would not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The "no action" alternative was discussed previously.

Potential Physical and Biological Effects							
		Major	Moderate	Minor	None	Unknown	Comments Included
A.	Terrestrial and Aquatic Life and Habitats			X			yes
B.	Water Quality, Quantity, and Distribution			X			yes
C.	Geology and Soil Quality, Stability, and Moisture			X			yes
D.	Vegetation Cover, Quantity, and Quality			X			yes
E.	Aesthetics			X			yes
F.	Air Quality			X			yes
G.	Unique Endangered, Fragile, or Limited Environmental Resource			X			yes
H.	Demands on Environmental Resource of Water, Air, and Energy			X			yes
I.	Historical and Archaeological Sites			X			yes
J.	Cumulative and Secondary Impacts			X			yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

Minor impacts on terrestrial or aquatic life and habitats would be expected from the proposed project because the facility would be a source of air pollutants. While the facility would emit air pollutants, and corresponding deposition of pollutants would occur, as described in Section 7.F. of this EA, the Department determined that any impacts from deposition would be minor due to dispersion characteristics of the pollutants and the atmosphere, and conditions that would be placed in Permit #3312-00. In addition, minor land disturbance would occur to construct the facility. Any impacts from facility construction would be minor due to the relatively small size of the project. Overall, any impacts to terrestrial and aquatic life and habitats would be minor.

B. Water Quality, Quantity, and Distribution

Minor, if any, impacts would be expected on water quality, quantity and distribution from the proposed project because of the relatively small size of the project. While the facility would emit air pollutants, and corresponding deposition of pollutants would occur, as described in Section 7.F. of this EA, the Department determined that, due to dispersion characteristics of pollutants and the atmosphere, and conditions that would be placed in Permit #3312-00, the chance of deposition of pollutants impacting water quality, quantity and distribution would be minor. In addition, facility construction would not impact water quality, quantity, or distribution because there is no surface water at or near the site.

Water would be required for dust suppression on surrounding roadways and areas of operation, but would only cause a minor disturbance to the area. Therefore, the proposed project would have only minor impacts to water quality, quantity, and distribution in the proposed area of operation. Overall, any impacts to water quality, quantity, and distribution would be minor.

C. Geology and Soil Quality, Stability, and Moisture

Minor impacts would occur on the geology and soil quality, stability, and moisture from the proposed project because minor construction would be required to complete the project. Any impacts to the geology and soil quality, stability and moisture from facility construction would be minor due to the relatively small size of the project. In addition, while deposition of pollutants would occur, as described in Section 7.F of this EA, the Department determined that the chance of deposition of pollutants impacting the geology and soil in the areas surrounding the site would be minor due to dispersion characteristics of pollutants and the atmosphere and conditions that would be placed in Permit #3312-00. Overall, any impacts to the geology and soil quality, stability and moisture would be minor.

D. Vegetation Cover, Quantity, and Quality

Minor impacts would occur on vegetation cover, quantity, and quality because minor construction would be required to complete the project. Any impacts to the vegetation cover, quantity, and quality from facility construction would be minor due to the relatively small size of the project. In addition, while deposition of pollutants would occur, as described in Section 7.F of this EA, the Department determined that the chance of deposition of pollutants impacting the vegetation in the areas surrounding the site would be minor due to dispersion characteristics of pollutants and the atmosphere and conditions that would be placed in Permit #3312-00. Overall, any impacts to vegetation cover, quantity, and quality would be minor.

E. Aesthetics

Minor impacts would result on the aesthetics of the area because the facility would be a new facility. Production tanks would be constructed to house the crude oil that would be visible. The facility would not create any additional noise in the area. Overall, any aesthetic impacts would be minor due to the relatively small size of the facility.

F. Air Quality

The air quality of the area would realize minor impacts from the proposed project because the facility would emit very small amounts of HAPs. The facility would also emit relatively small amounts of particulate matter (PM), particulate matter less than 10 microns in aerodynamic diameter (PM₁₀), and VOC. Air emissions from the facility would be minimized by conditions that would be placed in Permit #3312-00. Conditions would include, but would not be limited to, inspecting all fugitive components for leaks, on a monthly basis. Permit #3312-00 would also include conditions requiring Plains Marketing to use reasonable precautions to control fugitive dust emissions, as well as requiring inspection and repair requirements for fugitive VOC emissions.

While deposition of pollutants would occur as a result of operating the facility, the Department determined that any air quality impacts from deposition of pollutants would be minor due to dispersion characteristics of pollutants, the atmosphere (wind speed, wind direction, ambient temperature, etc.), and conditions that would be placed in Permit #3312-00.

G. Unique, Endangered, Fragile, or Limited Environmental Resources

In an effort to identify any unique endangered, fragile, or limited environmental resources in the area, the Department contacted the Montana Natural Heritage Program, Natural Resource Information System (NRIS). The NRIS search did not identify any species of

special concern in the vicinity of the project area. In this case, the area was defined by the section, township, and range of the proposed location with an additional 1-mile buffer zone. Due to the minor amounts of construction that would be required, the relatively low levels of pollutants that would be emitted, dispersion characteristics of pollutants and the atmosphere, conditions that would be placed in Permit #3312-00, and because the NRIS search did not identify any species of special concern in the vicinity of the project area, the Department determined that the chance of the project impacting any species of special concern would be minor.

H. Demands on Environmental Resource of Water, Air, and Energy

The proposed project would have minor impacts on the demands on the environmental resources of air and water because the facility would be a source of air pollutants. However, the facility's potential to emit would be relatively small by industrial standards. While deposition of pollutants would occur, as explained in Section 7.F of this EA, the Department determined that the chance of the proposed project impacting demands on air and water resources would be minor due to dispersion characteristics of pollutants and the atmosphere, and conditions that would be placed in Permit #3312-00.

The proposed project would have a minor impact on the demand on the environmental resource of energy because an electric pump is the only natural resource consuming equipment proposed for use as part of the project. Overall, any impacts on the demands on the environmental resources of air, water, and energy would be minor.

I. Historical and Archaeological Sites

In an effort to identify any historical and archaeological sites near the proposed project area, the Department contacted the Montana Historical Society, State Historic Preservation Office (SHPO). According to SHPO records, there have not been any previously recorded historic or archaeological sites within the proposed area. In addition, SHPO records indicated that no previous cultural resource inventories have been conducted in the area. SHPO recommended that a cultural resource inventory be conducted to determine if cultural or historic sites exist and if they would be impacted. However, the Department determined that due to the previous disturbance in the area (the area is an active crude oil field) that the chance of the project impacting any cultural or historic sites would be minor.

J. Cumulative and Secondary Impacts

Overall, the cumulative and secondary impacts on the physical and biological aspects of the human environment in the immediate area would be minor due to the relatively small size of the project. Potential emissions from the facility would be relatively small by industrial standards. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in Permit #3312-00.

8. The following table summarizes the potential social and economic effects of the proposed project on the human environment. The "no action" alternative was discussed previously.

Potential Social and Economic Effects							
		Major	Moderate	Minor	None	Unknown	Comments Included
A.	Social Structures and Mores				X		yes
B.	Cultural Uniqueness and Diversity				X		yes
C.	Local and State Tax Base and Tax Revenue			X			yes
D.	Agricultural or Industrial Production			X			yes
E.	Human Health			X			yes
F.	Access to and Quality of Recreational and Wilderness Activities				X		yes
G.	Quantity and Distribution of Employment			X			yes
H.	Distribution of Population				X		yes
I.	Demands for Government Services			X			yes
J.	Industrial and Commercial Activity			X			yes
K.	Locally Adopted Environmental Plans and Goals				X		yes
L.	Cumulative and Secondary Impacts			X			yes

SUMMARY OF COMMENTS ON POTENTIAL SOCIAL AND ECONOMIC EFFECTS: The following comments have been prepared by the Department.

A. Social Structures and Mores

The proposed project would not cause a disruption to any native or traditional lifestyles or communities (social structures or mores) in the area because the proposed project would take place in a remote location. The facility would be relatively small by industrial standards.

B. Cultural Uniqueness and Diversity

The proposed project would not cause a disruption to any cultural uniqueness and diversity in the area because the proposed project would take place in a remote location. The facility would be relatively small by industrial standards.

C. Local and State Tax Base and Tax Revenue

The proposed project would result in minor, if any, impacts to the local and state tax base and tax revenue because the proposed project would not require new permanent employees to be hired. In addition, only minor amounts of construction would be needed to complete the project.

D. Agricultural or Industrial Production

The current land use of the proposed location is agriculture; therefore, the proposed project would result in minor impacts to agricultural production due to the relatively small size of the facility. The proposed project would not have any impacts to industrial production because the proposed project would not displace any industrial land. While air emissions would continue to occur, as Section 7.F of this EA explains, the Department determined that the chance of deposition of pollutants impacting agricultural or industrial production in the areas surrounding the site would be minor due to dispersion characteristics of pollutants and the atmosphere, and conditions that would be placed in Permit #3312-00. Overall, any impacts to agricultural or industrial production would be minor.

E. Human Health

The proposed project would result in only minor, if any, impacts to human health because of the relatively small potential emissions. As explained in Section 7.F of this EA, deposition of pollutants would occur. However, the Department determined that the proposed project, permitted by Permit #3312-00, would comply with all applicable air quality rules, regulations, and standards. These rules, regulations, and standards are designed to be protective of human health.

F. Access to and Quality of Recreational and Wilderness Activities

The proposed action would not alter any existing access to or quality of any recreational or wilderness area. This project would not have an impact on recreational or wilderness activities because the site is far removed from recreational and wilderness areas or access routes.

G. Quantity and Distribution of Employment

The proposed project would not result in any impacts to the quantity or distribution of employment at the facility or surrounding community. No employees would be hired at the facility (because the facility would be unmanned). However, temporary construction-related positions could result from this project but any impacts to the quantity and distribution of employment would be minor due to the relatively small size of the facility.

H. Distribution of Population

The proposed project does not involve any significant physical or operational change that would affect the location, distribution, density, or growth rate of the human population.

I. Demands of Government Services

The demands on government services would experience a minor impact. The primary demand on government services would be the acquisition of the appropriate permits by the facility (including local building permits, as necessary, and a state air quality permit) and compliance verification with those permits.

J. Industrial and Commercial Activity

Only minor impacts would be expected on the local industrial and commercial activity because the proposed project would represent only a minor increase in the industrial and commercial activity in the area. The proposed project would be relatively small and would take place at a relatively remote location.

K. Locally Adopted Environmental Plans and Goals

The Department is unaware of any locally adopted environmental plans and goals that would be affected by the proposed change to the facility. The facility would be regulated similar to other sources with no locally adopted environmental plans and goals.

L. Cumulative and Secondary Impacts

Overall, the cumulative and secondary impacts from this project on the social and economic aspects of the human environment would be minor because only the industrial activity and possibly the tax base would increase as a result of this project. Due to the

relatively small size of the project, the industrial production, employment, and tax revenue (etc.) would not be significantly impacted by the proposed project. In addition, the Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in Permit #3312-00.

Recommendation: No EIS is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the construction and operation of a crude oil unloading station. Permit #3312-00 would include conditions and limitations to ensure the facility would operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: None

Individuals or groups contributing to this EA: Department of Environmental Quality (Air Resources Management Bureau), Montana National Heritage Program, Montana Historical Society – State Historic Preservation Office

EA prepared by: Chris Ames

Date: 2/24/04